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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/403,894 | 10/26/1999 | SEIJI MOTOJIMA | 87711 | 7827 |

7590 04/16/2002

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EXAMINER

HENDRICKSON, STUART L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1754

13

DATE MAILED: 04/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/403,894

Applicant(s)

MOTOJIMA ET AL.

Examiner

Stuart Hendrickson

Art Unit

1754

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-32 and 35-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-22, 25-32 and 37-40 is/are rejected.
- 7) ☒ Claim(s) 23, 24, 35, 36 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The request filed on 3/26/02 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/403894 is acceptable and a CPA has been established. An action on the CPA follows.

Claims 37 and 38 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. According to applicants own arguments, the DC field cannot result in circular fibers. Thus, the claims are defective.

Claims 19-22, 25-32, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK '230.

UK '230 teaches making carbon fibers from hydrocarbon gas and catalyst, the catalyst possibly being generated in-situ or placed in the reactor.

The reference does not teach doing both, however having the two claimed catalyst sources is an obvious expedient to assure the presence of a catalyst. Similarly, the reference teaches P and S-containing catalysts. Note that using two materials selected from a list of individually-taught items is obvious to the artisan; In re Kerkhoven 205 USPQ 1069. Concerning the lack of magnetic field, to the extent that one exists, using an oven without a field is an obvious expedient to provide the heating required by the reference.

Claim 22 appears to be a matter of routine optimization of contact time, and thus is obvious. It is noted that the apparatus claims which require a catalyst therein are broad enough to encompass the reference which decomposes gas to form metal catalyst in situ.

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Applicant's arguments filed 7/30/01 have been fully considered but they are not persuasive.

Both the reference and the claims recite 'coils', thus no difference is seen in the fiber structure.

The reference depicts circular fibers, despite the arguments as to theoretical mechanism.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.

A handwritten signature in black ink, appearing to read 'Stuart Hendrickson', is positioned above the printed name.

Stuart Hendrickson
examiner Art Unit 1754